

REMARKS

Claims 1-6 and 8-26 are pending in the application.

Claims 1-6 and 8-26 are rejected.

Claims 20-25 are rejected under 35 U.S.C. 112.

Claims 1, 6, 11 and 14 are rejected under 35 U.S.C. 102(b).

Claims 2-5, 8-10, 12-13, 15-19 and 26 are rejected under 35 U.S.C. 103(a).

The rejections are traversed.

Examiner Interviews

On October, 11, 2006, October, 12, 2006, and October 16, 2006, interviews were held between Derek Meeker, an attorney for the Applicant, and the Examiner, Paul Schlie. During the interviews, potential amendments to the claims, including claims 1, 20, 23 and 24, were discussed. The Examiner indicated that claims 20 and 23 as amended were not taught or suggested by the art of record.

In addition, the rejections of claims 20-25 under 35 U.S.C. 112, first paragraph, were discussed. The Examiner indicated that the error correction coding method may be considered enabled if it is considered sufficiently analogous to prior art encoding schemes. As described below, the Applicant believes that one skilled in the art would be able to make and use the claimed subject matter without undue or unnecessary experimentation by examining the application and drawings, without relying on any suggested similarity to prior art encoding schemes.

In addition, the Examiner indicated that Conley was an improvement over an implicitly disclosed inline error correction. As described below, the Applicant believes that Conley does not implicitly disclose inline error correction and improves upon a reference without error correction. Thus there is no implicit disclosure of inline error correction in Conley.

Claim Amendments

Claims 1, 4, 6, 11, 14, 18, 20 and 23 have been amended. Support for the amendments may be found in the application as filed, for example, on page 5-12 and FIGs. 2, 3 and 6. No new matter has been added.

Claim Rejections - 35 U.S.C. § 112

Claims 20-25 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure that is not enabling. As elements critical or essential to the practice of the invention, are not included in the claims nor enabled by the disclosure.

The Applicant asserts that, after examining the application and the drawings, one skilled in the art would understand how to make and use the claimed subject matter without undue or unnecessary experimentation. For example, in the specification on page 12, if the comparison result is "1" for 12 bits (half of the 24 parity bits), it is a one bit error. FIG. 6 illustrates an association of column parities and line parities to a page of data. As can be seen in FIG. 6, a one bit error would change half of the column and line parities. For example, an error in bit b7 of byte B1 would affect column parities CP1, CP2, and CP4, and not parities nCP1, nCP2, and nCP4, and would affect line parities nLP1 ... nLP512 and not LP1 ... LP512. Similar unique combinations of column and line parities exist for one bit errors in bits of other columns. Since the comparison of the parity bits would generate a comparison result that is unique to the line and column with the error, one skilled in the art would understand how to correct the error. As a result, one skilled in the art would understand how to make and use the subject matter of claims 20-25 without undue or unnecessary experimentation after examining the application and drawings. The Applicant requests that the Examiner withdraw the rejections of claims 20-25.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 6, 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Conley, et al. (6,266,273) ("Conley").

Claim 1 includes a transferring circuit configured to provide the source data to the correction circuit from the page buffer and to provide amended data to the page buffer from the correction circuit after the correction circuit has corrected the bit error. A replicating circuit is configured to copy the source data into the page buffer and to store the amended data into another page from the page buffer. Thus, the amended data is stored into another page from the page buffer after it is corrected. Claims 6, 11 and 14 include similar elements.

In contrast, as described in Conley, the transfer and verification operation occurs simultaneous with the program operation. *Conley, col. 6, ll. 18-19*. Thus, it is not amended data, but the original uncorrected data that is programmed in Conley. As a result, Conley does not

teach each and every element of claims 1, 6, 11 and 14. The Applicant requests that the Examiner withdraw the rejection of claims 1, 6, 11 and 14.

Claim Rejections - 35 U.S.C. § 103

Claims 2-5, 8-10, 12-13, 15-19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conley.

As described above with respect to claims 1, 6, 11 and 14, the amended data is stored into another page from the page buffer after it is corrected. Claim 23 includes similar elements. Conley teaches away from performing such correction. The focus of Conley is an operation in which the validity of the data being programmed during a copy operation can be assured without a performance penalty. *Conley, col. 6, ll. 24-28*. Conley does describe a reference that rewrites data in a flash memory without transferring it out of the flash memory, but it does not correct errors. *Conley, col. 4, ll. 3-12*. Thus, not only does Conley teach away from adding error correction before copying a page of memory, a reference which Conley improves upon does not even have error correction. As a result, claims 1, 6, 11, 14, 23, and dependent claims 2-5, 8-10, 12-13, 15-22 and 24-26 are not taught or suggested by Conley. The applicant requests that the Examiner withdraw the rejections of claims 2-5, 7-10, 12-13, 15-19 and 26.

As described above, the Examiner indicated that claims 20 and 23 as amended are allowable over the prior art of record. Claim 4 has been amended to include a similar element. As a result, the Applicant requests that the Examiner allow claims 4, 20, 23, and dependent claims 21-22 and 24-25.

For the foregoing reasons, reconsideration and allowance of claims 1-6 and 8-26 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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